Figure 1

In vitro characterization of the radiotracer [^{131}I]MTO

1. [^{131}I]MTO binds fast and reversibly to rat adrenal membranes.
2. Saturation analysis suggested a single class of binding sites with an equilibrium constant (K_D) = 7.4 ± 2.8 nM
3. All synthetic analogues of MTO were characterized as competitive inhibitors of specific [^{131}I]MTO binding to adrenal membranes.
4. Known inhibitors of 11β-hydroxylase acticity (metyrapone, ketoconazole) are also potent displacers of [^{131}I]MTO binding.

Figure 2

Inhibition of ^{131}I-MTO binding by etomidate derivatives

Inhibitor	IC_{50} (nM)	SD	n
Etomidate	1.08	0.42	11
Metomidate	3.69	1.92	6
4-Iodo-metomidate	9.0	3.7	15
2-Fluoro-etomidate	2.89	0.55	4
Free acid	123 μM	41	3

Figure 3

Distribution of radioactivity after intravenous injection of ^{131}I-MTO in rats (means ± SD, n=4)

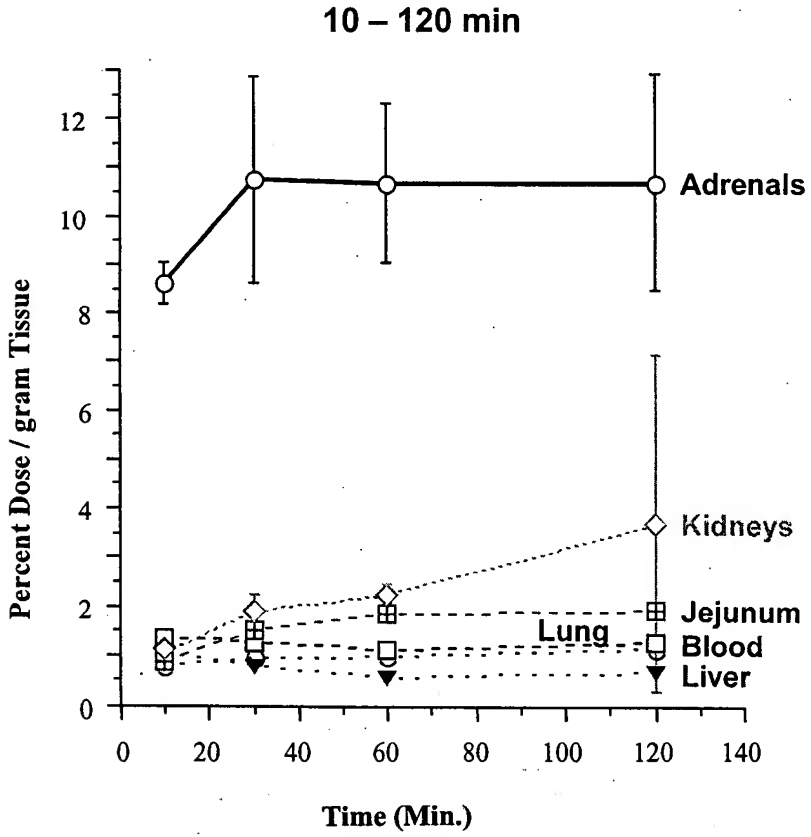


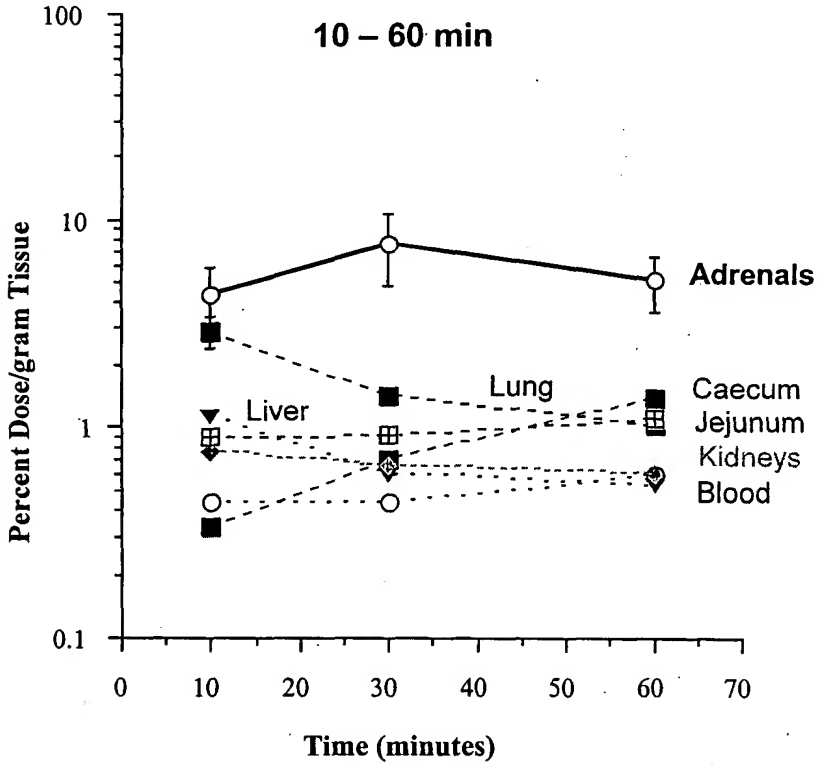
Figure 4

Target / Non-Target Ratios obtained with ^{131}I-MTO

Organ	10	30	60	120 (min)
Adrenal / Kidney	**7.7**	**5.7**	**4.7**	**2.9**
Adrenal / Liver	8.4	13.9	19.7	15.5
Adrenal / Jejunum	9.8	7.2	5.7	5.5
Adrenal / Blood	11.3	11.1	10.7	9.0

Figure 5

Distribution of radioactivity after intravenous injection of ^{18}F-FETO in rats (means ± SD, n = 3)



T/NT ratio at 30 min p.i.	
Adrenal/Lung	5.5
Adrenal/Liver	12.8
Adrenal/Jejunum	8.4
Adrenal/Caecum	11.0